

REMARKS

Election of Species Requirement

The Election of Species Requirement that was mailed on April 4, 2005, has been received and reviewed.

Four species and three subspecies of invention have been identified:

Species A: Figures 1 and 2;

Subspecies a: Figures 3-5;

Subspecies b: Figures 6-8;

Subspecies c: Figures 9-11;

Species B: Figure 12;

Species C: Figure 13; and

Species D: Figure 14.

Species A, which is illustrated in Figures 1 and 2, includes a propulsion system, which includes a pressure vessel, at least one axial thrust valve, and at least one maneuver control valve. Subspecies a, b, and c, illustrated in Figures 3 through 11 include various configurations of the maneuver control valves of a propulsion system. Species B, which is illustrated in Figure 12, includes a propulsion system, which includes a pressure vessel, at least one axial thrust valve, at least one maneuver control valve, and at least one igniter grain. Species C, which is illustrated in Figure 13, includes a propulsion system, which includes a pressure vessel, at least one axial thrust valve, at least one maneuver control valve, at least one igniter grain, and a plurality of propellant grains. Figure 14, identified as a fourth species D, is merely a schematic diagram of a hybrid rocket engine configuration, which may include any of the propulsion systems illustrated in Figures 1 through 13. It is respectfully submitted that the propulsion system of Figures 1 and 2 may include the at least one igniter grain depicted in Figure 12, or the plurality of propellant grains depicted in Figure 13. Further, the various configurations of the maneuver control valves of a propulsion system illustrated in Figures 3 through 11 may be applied to the propulsion systems illustrated in Figures 12, 13, or 14.

An election is hereby made, without traverse, to prosecution the invention of Species C. It is respectfully submitted that claims 1 through 35 and claims 40 through 49 read on the

invention of Species C. Claims 36 through 39 have been cancelled as claims 32 through 35 and claims 36 through 39 address identical subject matter.

It is respectfully submitted that each of claims 1-19, 24-31, 42-46, and 48 reads on and is also generic to Species A, B and D. Further, each of claims 1-14, 24-26, 28-31, 42-46, and 48 reads on and is also generic to Subspecies a, b and c.

Preliminary Amendment

Applicants' undersigned attorney notes the filing herein of a Preliminary Amendment on May 17, 2004, which filing was not acknowledged in the outstanding Office Action. Should the Preliminary Amendment have failed for some reason to have been entered in the Office file, Applicants' undersigned attorney will be happy to have a true copy thereof hand-delivered to the Examiner.

In view of the foregoing, it is respectfully requested that each of claims 1 through 35 and claim 40 through 49 be considered on the merits.

Respectfully submitted,



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